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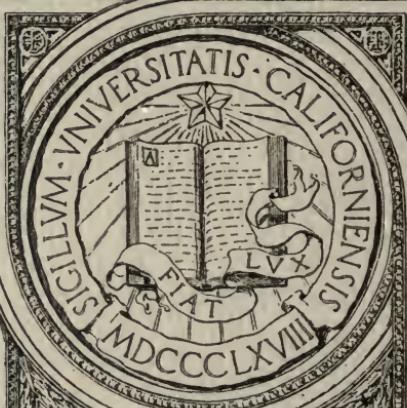
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# COAST ARTILLERY TARGETS AND ACCESSORIES

*(THREE PLATES)*

FEBRUARY 27, 1908  
REVISED JUNE 15, 1909  
REVISED OCTOBER 29, 1913  
REVISED AUGUST 21, 1917



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1917



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NO. 190001  
AMERICAN

WAR DEPARTMENT,  
OFFICE OF THE CHIEF OF ORDNANCE,  
*Washington, August 21, 1917.*

This manual is published for the information and government  
of the Regular Army and National Guard of the United States.

By order of the Secretary of War:

WILLIAM CROZIER,  
*Brigadier General, Chief of Ordnance.*

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## LIST OF PLATES.

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	Drawing No.
PLATE I. Seacoast target, small, model 1917-----	39-2-3
II. Seacoast target, pyramidal, model 1917-----	39-4-3
III. Seacoast target, triangular, model 1917-----	39-4-11

## COAST ARTILLERY TARGETS AND ACCESSORIES.

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### PLATES I, II, and III.

The seacoast target, small, model of 1917, is to replace the smaller target, model of 1910.

Two pyramidal targets are provided, the one shown on drawing 39-4-3 is to be used for the greater ranges and more severe weather conditions; the triangular target is intended for use at lesser ranges, especially where the maximum towing speed is desired.

All three targets were designed in accordance with results obtained from a number of experimental targets made up originally in Long Island Sound and later given exhaustive tests by the Coast Artillery Board at Fort Monroe.

It is not thought to be expedient to specify the conditions under which each target is to be used but to allow the coast defense commander the greatest latitude in the solution of the problems which confront him.

#### SEACOAST TARGET, SMALL, MODEL OF 1917.

This target has a base of two running timbers 3 by 12 inches by 29 feet braced by three cross planks 2 by 10 inches by 10 feet notched into the running timbers. A prow cleat 1 by 12 inches by 2 feet is attached to the front end of each running timber by means of two prow-cleat brackets. The two towing irons are attached to the outside of the two running timbers at the prow.

The superstructure is a vertical rectangular frame 10 by 24 feet consisting of three upright masts and two longitudinal boards. Each mast consists of two 1 by 4 inch boards nailed together at right angles and supported on the cross planks in pillow blocks. The top of each mast is braced by four guy ropes two of which are attached to each running timber. All guy ropes are made of one-eighth inch diameter flexible wire sash cord and are supplied with 4 inch turn-buckles. The center mast is extended 6 feet above the rest of the superstructure in order to provide a sight rod which is painted in alternate bands of white and red, each band 1 foot 6 inches wide.

A twine net, 0.5 square mesh, of No. 15 twine, is strung between the three masts. This net is bound with a 15-thread 0.625 diameter manila rope on four sides, and is secured to the masts and longitudinal boards by means of screw hooks. A piece of vermillion bunting will be issued with each target to be fitted to the target at the post.

The wood work is spruce or yellow pine, and is given two coats of red-lead paint, except that the white bands of the sight rod are painted with white-lead paint.

#### **SEACOAST TARGET, PYRAMIDAL, MODEL OF 1917.**

The base of this target is composed of three parallel running timbers, two cross planks notched into the running timbers, and a prow cleat. Two mast boards are bolted to the middle running timber and are nailed together at the top. They are braced with 1 by 4 inch boards to the middle running timber. Guy ropes made of one-eighth inch flexible wire sash cord run from the mast boards to the front and rear of each of the outside running timbers. These guy ropes are supplied with 4-inch turnbuckles, and should be kept taut in order to prevent straining or dislocating the mast boards. The cover of the target extends to within 3 feet 8 inches of the base and is made of vermillion bunting. It is tied to one-half inch diameter manila ropes which lead from the front and rear ends of the outside running timbers to the top of the mast where they pass through a hole in the mast boards. Two towing irons are supplied at each end of the target to permit of towing two or more targets at once.

All of the woodwork of the pyramidal target is of spruce or yellow pine painted with two coats of red-lead paint.

#### **SEACOAST TARGET, TRIANGULAR, MODEL OF 1917.**

This target has a base of two running timbers 3 by 12 inches by 14 feet, braced by two cross planks 2 by 10 inches by 10 feet, the cross planks being notched into the running timbers. The superstructure consists of two target legs, one of which is attached at the center of each cross plank by means of target-leg blocks. The target legs are set at angles of  $22^{\circ}$  with the vertical and are nailed together at the point where they cross. The superstructure is braced by two guy ropes made of flexible-wire sash cord, which are attached by nut eyebolts to the target legs near the point where they cross and to each of the running timbers. Each guy rope is supplied with a 4-inch turnbuckle. The right target leg is made 4 feet longer than the left target leg and has the part above the point of attachment of the left target leg painted in alternate bands of white and red, each 12 inches broad, to furnish a suitable aiming point. A piece of vermillion bunting is attached to the two target legs by tacks and leather washers and extends from 15 inches below the bottom of the sight rod to 5 feet above the running timbers. The towing irons are attached to the outside of the running timbers at the prow.

The woodwork is spruce or yellow pine, and is given two coats of red-lead paint except that the white bands on the sight rod are painted with white-lead paint.

#### **PRESERVATION AND CARE OF TARGETS.**

When not in use the targets should be placed on skids about 1 foot from the ground and, if practicable, out of the wind.

The towline, nets, and the bridles will be removed from the targets when out of use.

Care will be taken to see that the targets are painted with sufficient frequency to preserve them from deterioration.

#### **TOWLINES, BRIDLES, ANCHORS, ETC.**

The towline is not a part of these targets. The length of the towline varies for different districts. (See current target practice circular for allowance of towlines, targets, etc.) For attaching the towline to the targets, bridles of manila rope are used. The bridle is made of 0.75-inch diameter rope and has two branches of 20 feet each. A thimble in the middle is provided for the attachment of the towline to prevent the target from towing sideways.

The anchor furnished is 100 pounds in weight.

Two streamers, made of scarlet woolen serge, are authorized for each post where target practice is held; one for use on the towing tug and one for use on shore. (See drawing 39-5-1 for streamer.)

#### **CARE AND PRESERVATION OF TOWLINES AND BRIDLES**

Great care is necessary to preserve rope that has been wet with salt water from rapid deterioration. All rope should be removed from the targets and coiled when not in use. Before coiling it should be dried, and after coiling should be stored in a dry building.

#### **SUPPLY OF TARGETS, ACCESSORIES, SPARE PARTS, ETC.**

The allowances of spare parts of targets are given on Plates I, II, and III.

The permanent equipment is liable to change from time to time by War Department orders.

The upkeep of the articles forming the permanent equipment in and the supply of the spare parts to the various coast defenses will be attended to by the commanding officers of the following ordnance establishments, to wit:

Watertown Arsenal: All in the Northern, Central, and Sandy Hook Armament Districts and the Canal Zone.

Augusta Arsenal: All Coast Defenses of the Southern Armament District.

Benicia Arsenal: All Coast Defenses in the Western and Hawaiian Armament Districts.

Manila Ordnance Depot: All Coast Defenses in the Philippine Armament Districts.

Requisitions for target material will be forwarded to the commanding officers of the above ordnance establishments by department ordnance officers for action.

WAR DEPARTMENT,

OFFICE OF THE CHIEF OF ORDNANCE,

*Washington, August 21, 1917.*

February 27, 1908.

Revised June 15, 1909.

Revised October 29, 1913.

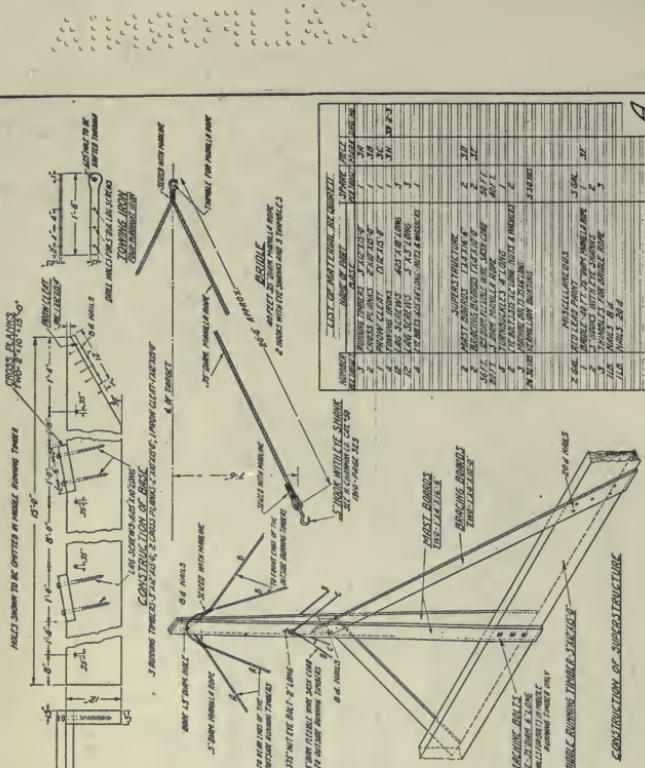
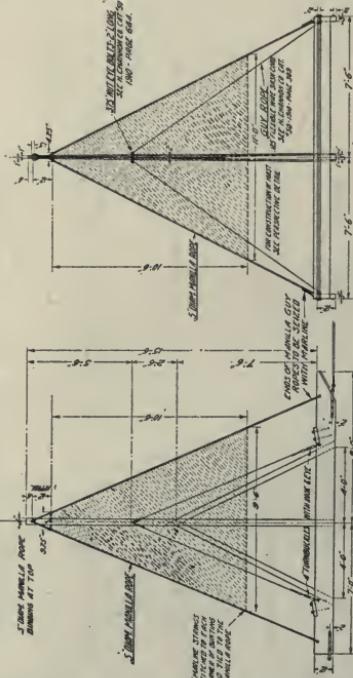
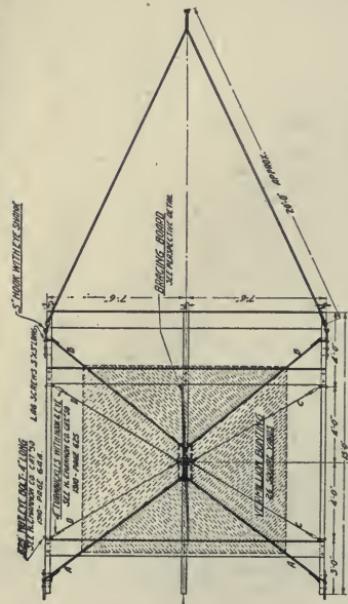
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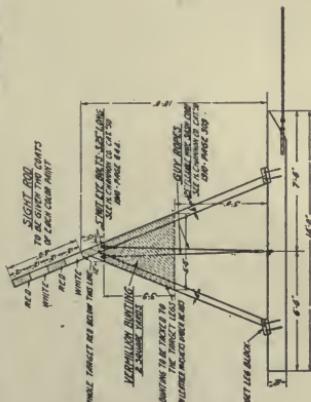
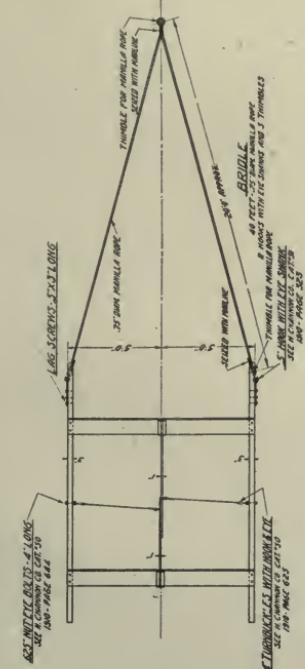


PLATE II.



**NOTE -** *ALL NEED TO BE SPARCE OR YELLOW DINE,  
ALL NORDWARD TO BE MILDRED TAN AND GINGERED,  
ALL HAWAIIAN WITH SPICE, T AND SCENIC THROUGHT,  
ALL HAWAIIAN AND NATIVE BEEF TO ALL SENSE AND TASTE AND ALL DINE*

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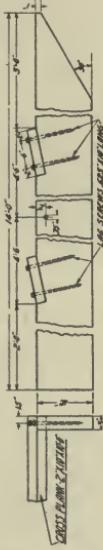


**NOTE:** ALL WOOD TO BE SAWN, AND YELLOW PAINT  
ALL PAINTED PARTS TO BE INCLINED AWAY AND DILUTED  
ALL PAINTED WOOD TO BE SCRATCHED THOROUGHLY  
ALL PAINT AND METAL PARTS TO BE GIVEN TWO COATS OF RUST LEAD  
PAINT—EVEN SCOUR AND SCRUB.

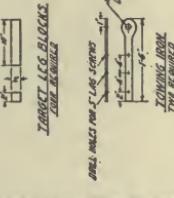


MAKE ONE RIGHT AND ONE LEFT LEGS

JOURNAL OF TRANSLATIONAL MEDICINE 2017, 15:107. DOI: 10.1186/s13024-017-0495-7. REVISIONS



## 2. RUNNING TIME OF 2-GRADUATION

















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